Ovogenesis and the Normal Follicular Cycle in Adult Mammalia.*—Ovogenesis in the rat, guinea-pig, dog, cat, and man, occurs throughout the whole period of sexual life in a rhythm fundamentally related to the ovulation cycle. In all cases the new birth of eggs occurs in large numbers throughout metestrum and anestrum. In the latter phases of this production a striking picture is produced in the ovary.

The final maturity and ovulation of a selected group of follicles or a single follicle involves the destruction of all remaining follicles. In the dog and cat this extensive production and sweeping destruction of follicles is an impressive phenomena. The destruction seems complete, and immediately following ovulation the next succeeding ovogenetic wave begins. This is called the "follicular cycle." In the rat, guinea-pig, and dog, the follicular cycle coincides normally with the estrus cycle. In the cat the two cycles may or may not coincide. In man the follicular cycle has no necessary relation to the menstrual cycle, ovulation taking place at any time during the latter cycle.

The ova arise by proliferations from the germinal epithelium in the form of invaginations or cords, forming groups of epithelial cells which are cut off from the epithelium and pass through the tunica albuginea. From one to many cells in each group enlarge and develop into sex cells, the remaining epithelial cells in the group forming the follicle cells. Extensive degeneration of the sex cells is a normal process in each cycle. This occurs to some extent at all periods, but reaches its maximum at anestrum or proestrum, extending into the next cycle, and resulting in the almost complete destruction of the enormous numbers formed during that cycle. It occurs at all stages of growth of both ova and follicles. Degeneration usually begins in the granulosa cells, but occasionally the first indications may be found in the ovum. In polyovular follicles, one or more ova usually degenerate before the others.

Estrum marks the end of the preceding wave of ovogenesis and follicular development and the beginning of the next wave in the rat, guinea-pig, and dog. It is the period at which the fewest sex cells, other than atretic ones, are to be found in the ovary. In the cat and man the ovulation period marks the end of one wave and the beginning of the next. New sex cells are formed at all periods of the cycle, but the number of these increase gradually, beginning with early metestrum to the end of the cycle. During late pregnancy and in anestrum and proestrum very large numbers are present. During pregnancy the rhythm of the follicular cycle is not obliterated. In the rat, which has a gestation period of four or five times the length of the estrous cycle, four or five cycles of the production of eggs and follicles and their degeneration occur during the period. Recurring cycles are also found in the guinea-pig. In the rat the number of ova produced is smaller than in the other mammals, but the sequence of events in the follicular cycle is the same, though the short length of the cycle results in a telescoping of the different phases. In man there is the same evident relation of ovogenesis to the ovulation cycle which seems to characterize the mammalia generally.

Ovulation in man seems to occur at approximate intervals of twenty-eight days. This rhythm bears no exact or invariable relation to the menstrual cycle. The preliminary maturation phases so characteristic of the male germ cells are not found in the ova of these adult mammals. In the monkey the follicular cycle has been only partially investigated. Ovogenesis takes place in the same manner as in the other mammals. Ovulation apparently takes place at any time in the menstrual cycle. The concept that in the mammalia the ova are all formed before birth and remain quiescent until sexual maturity calls them into activity, has no foundation in fact. On the contrary, all the ova of adult life are new formations and are being constantly produced and as constantly destroyed. These processes are part of the rhythmic production and destruction of the tissue in the generative tract which is without parallel in any other organ in the body, the sex cells having probably the shortest life span of any cells in the body.

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Avoidable Causes That Lead to Malpractice Suits.—Some do's and don'ts concerning the subject of threatened malpractice suits are given in a very instructive article in the *New England Journal of Medicine* for April 16, 1931. Among other interesting items we note the following: "A fluoroscope has its place, no doubt, but in diagnosing fracture and discerning apposition there is no substitute for an x-ray. The x-ray is evidence that can be produced. It is concrete. What you saw in the fluoroscope was happening at the time, but it cannot be produced to prove that you got apposition when later the patient removes his cast without your knowledge or does some other act that causes loss of apposition. Here is another timely suggestion: "Please don't criticize, particularly to the patient, the treatment given by some other doctor before the patient came to you. You see the result, nothing more. You do not know the whole story. You do not know what the original condition was, what the other man encountered in the way of difficulties or whether he had proper cooperation from the patient. Wait until the evidence is all in. You may have to change your mind when you get all the facts. You may be wiser but at least you will know what you are talking about." To this we may add the injunction to be careful about what you say and to whom you say it, for in an unguarded moment you may give to a relative, or even a lawyer, a club that later will be used to beat you, and always remember that there are plenty of people who are trying to get something for nothing and it is easy to attempt to blackmail a physician and force him to pay indemnity for an alleged malpractice.—*Journal of the Indiana State Medical Association.*

Live in the ward. Do not waste the hours of daylight in listening to that which you may read by night. But when you have seen, read. And when you can, read the original descriptions of the masters who, with crude methods of study saw so clearly.—Osler, the Teacher.